STICK-KE2

Sunlite Touch Sensitive Intelligent Control Keypad

Overview

This truly simple controller features an on/off button at the top, 8 buttons to choose from up to 200 lighting scenes (25x8), 2 buttons to cycle between pages and a horizontal fader to instantly adjust dimmer, speed and color. Along with a state of the art design, the product comes with amazing features such as 1024 DMX channels, touch sensitive panel, clock/calendar, Ethernet facilities, and much more....

The lighting levels, color and effects can be programmed from a PC, Mac, Android, iPad or iPhone using the included software.

www.nicolaudie.com/stick-ke2.htm

Key Features

- 8 touch sensitive scene buttons
- Color/dimmer/speed fader
- Touch sensitive buttons. No mechanical parts
- Touch sensitive fader allows for accurate color selection
- Multi-zone microSD memory
- Multi-room control with 200 scenes, 5 zones
- 1024 DMX channels. Control 340 RGB fixtures
- USB & Ethernet connectivity for programming and control
- RS232 and Dry Contact Ports
- Clock and calendar with Sunrise/Sunset triggering
- Network communication. Control lighting remotely
- Windows/Mac software to set dynamic colors/effects
- iPhone/iPad/Android remote and programming apps

Technical Data

Input Power	6-9V DC 0.6A
Output Protocol	DMX512 (x2)
Programmability	PC, Mac, Tablet, Smartphone
Available Colors	Black
Connections	USB, Ethernet, RS232, Clock, 8 dry contact ports, Output Relay
Memory	microSD card 4GB max, FAT16/32
Temperature	-10 °C to 50 °C
Mounting	Single or double gang wall socket
Dimentions	146x106x11mm
Weight	247g
Standards	EC, EMC, ROHS, ETL

Optional Accessories

POWER4M 6V ACDC power supply

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EASY INSTALLATION

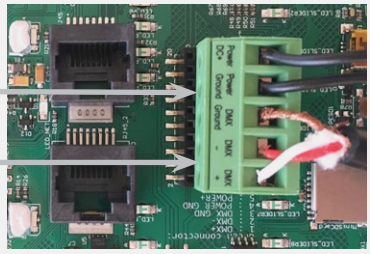
1. Mount an electrical box inside the wall

The controller can be installed in any standard electrical backbox. If you use a double size box, you can insert the power supply inside.

2. Connect the wires

POWER: Connect a 6V to 7V DC 0.6A ACDC supply.
Be sure to not invert the + and the ground.

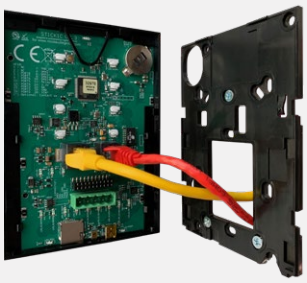
DMX: Connect the DMX cable to the lighting receivers (Leds, Dimmers, Fixtures..)
(for XLR: 1=ground 2=dmx- 3=dmx+)



3. Mount the interface on the wall

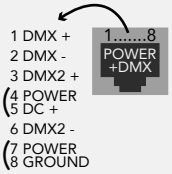
First, mount the back side of the interface on the wall with 2 or more screws.
Secondly, plug the connectors :
- DMX and power (connector block or RJ45)
- Ethernet cable (allows LAN connection)

The front panel is mounted by pressing it against the back plate and then sliding down. 2 screws can then be attached under-neith to hold the prevent removal.



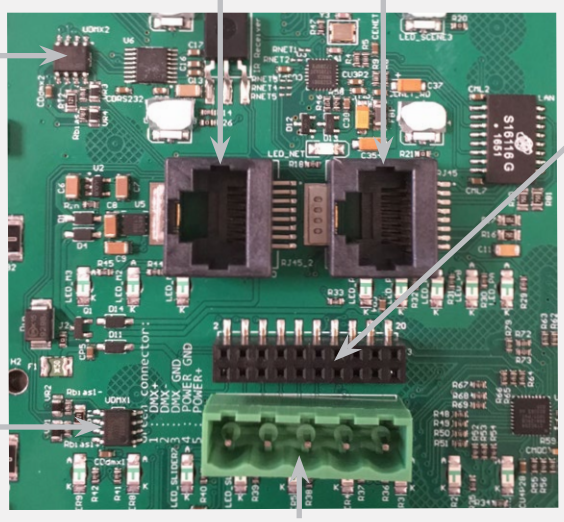
POWER+DMX WITH THE CONNECTOR BLOCK

POWER+DMX WITH THE RJ45 CABLE



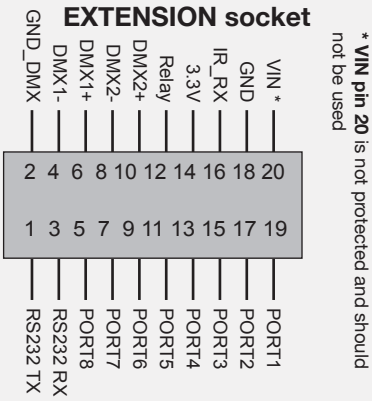
****CHECK PIN CONFIGURATIONS. APPLYING POWER TO THE DMX INPUT WILL DAMAGE THE CONTROLLER****
****MAKE SURE THE CONTROLLER IS MOUNTED WITHOUT TOO MUCH FORCE BEHIND AS THIS CAN PUSH APART THE GLASS****

I/O CONNECTIONS



DMX CHIP
replacement
Ref: SP485ECN-L
MAX485 CSA

EXTENSION socket



*** VIN pin 20** is not protected and should not be used

Compatible header connectors:
WURTH ELEKTRONIK ref: 61301021121
MOLEX ref: 10-89-7202
TE Connectivity ref: 1-87227-0
FCI ref: 77313-101-20LF
HARWIN ref: M20-9981046
SAMTEC ref: TSW-110-xx-T-D
FARNELL ref: 1841232
RS ref: 763-6754 673-7534 251-8165
MOUSER ref: 538-10-89-7202
DIGIKEY ref: WM26820-ND

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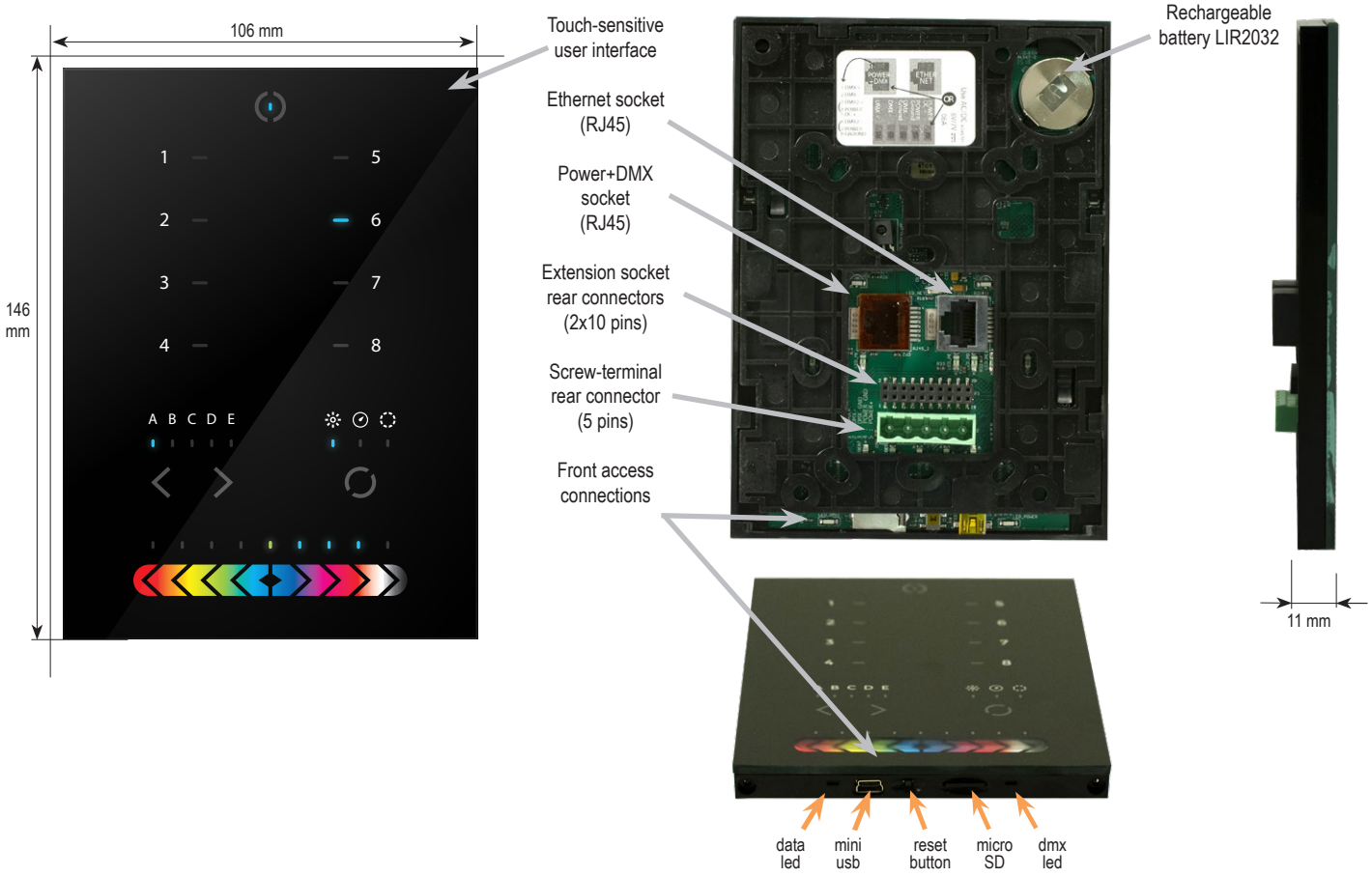
Connections



SPECIFICATIONS / CONNECTIONS		Built-in features	screw-terminal rear connector (5 pins)	extension socket rear connectors (2x10 pins)	front access connections (open cover)
Power Supply	7V DC 0.65A, supplied		•		USB
DMX Output #1	First universe, 512 channels DMX512 output		•	•	
DMX Output #2	Second universe, 512 channels DMX512 output **(*)**			•	
USB	USB 2.0 communication for PC/software				•
Ethernet	Advanced networking features	•			
Ports 1 - 8	Contact closure inputs, connect to GND to trigger			•	
User interface	14 buttons, 1 fader, 28 leds (Touch-sensitive keypad)	•			power/data leds
SDCARD	MicroSD card for stand alone memory use (supplied)				•
RESET	Push button for reset operation				•
RS232	RS232 Serial communication for external synchronisation			•	
Output relay	Automatic Stand by 5V signal			•	
Clock	Real time clock and calendar	•			

Service

Servicable parts include:

- Memory card - used to store the scenes
- Battery - used to store the clock/calendar
- DMX Chips - used to drive the DMX (see p2.)

*To replace the Li-Ion rechargeable battery :

1. You need a rechargeable 3.6v LIR 2032 replacement battery
2. Remove the back panel by pulling down and sliding it out.
3. Using a paper clip push the battery from the bottom so it slides out of its cage.
4. Slide the replacement battery in from the top, making sure the positive side is facing up.
5. Replace the back panel by pushing it up into place.

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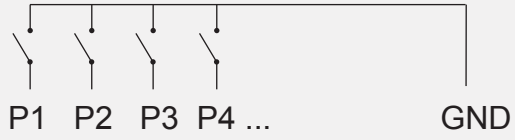
Setting up the Controller

Dry Contact Port Triggering

It is possible to start scenes using the input ports (contact closure). To activate a port, a brief contact of atleast 1/25 second must be established between the ports (1...8) and the ground (GND). Note: the scene will not be switched off when the switch is released.



RS232 Triggering

Make a cable using the 3 pins : TX, RX and G (GND)
Set the RS232 parameters to : 9600bds 8 bits, no Parity, 2 Stop bits

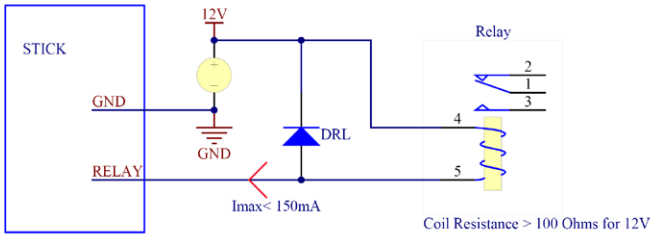
- To play a scene, send 3 bytes : **1 x 255**
- To stop a scene, send 3 bytes : **2 x 255**
- To pause a scene, send 3 bytes : **3 x 255**
- To release a pause, send 3 bytes : **4 x 255**
- To reset a scene, send 3 bytes : **5 x 255**

The scene number (x) can be from 1 to 40. For instance, 11 means Page B Scene #3

Relay

A relay can be connected between the RELAY and GND sockets of the 20 pin extension socket. This is an OPEN COLLECTOR OUTPUT that can drive up to 150mA, 20V. Current flows when the controller is on and is stopped when in standby.

It can be used to turn off other equipment such as lighting drivers to save power (see diagram right).



Example relay : FINDER Ref. 22.23.9.012.4000

iPhone/iPad/Android Control

The controller can be used with one of 3 different apps.

Lightpad
Designed to work seamlessly with the controller, Lightpad provides an easy way to control your lights over a local WiFi network from a tablet or smartphone. Use the slider to change the dimmer, color or speed, and the 8 scene buttons to select scenes and effects just like the wall panel.
www.nicolaudie.com/lightpad.htm

Easy Remote
Create an entirely customized remote controller for your tablet or smartphone. Easy Remote is a powerful and intuitive app allowing you to easily add buttons, faders, color wheels and more. Connect to a WiFi network and the app will find all compatible devices.
www.nicolaudie.com/easy-remote.htm

Arcolis (Android only)
The Arcolis application is a comprehensive tool allowing you to directly control and re-program the controller from your smartphone or tablet. This is a simple application which can be used by just about everyone in any situation. Mobile, easy to use and powerful, Arcolis is the ideal controller for dimming or switching traditional, LED and RGB color mixing DMX lighting fixtures. Program static and dynamic lighting scenes and effects.

UDP Triggering

The dmx controller can be connected to an existing automation system over a network and triggered via UDP packet on port 2430. Use HardwareManager to find IP address of dmx controller. Refer to the remote protocol document for more information.

Stick 1 Remote Protocol (PDF)
www.nicolaudie.com/download.htm

Network Control

The controller can be connected to a local network, allowing it to be controlled from a smartphone or tablet over WiFi.

- Connect the controller to a router or switch with an RJ45 cable
- The controller is set by default to get an IP address from the router via DHCP. If the network is not working with DHCP, a manual IP address and subnet mask can be set using the Hardware Manager
- If the network has a firewall enabled, allow port 2430

Programming the Controller

The controller be programmed from a PC, Mac, Tablet or Smartphone using the software available on our website. Refer to the corresponding software manual for more information. The firmware can be updated using the Hardware Manager which is included with the programming software.

ESA Pro Software (Windows) - Timeline + Multi-Zone
https://www.nicolaudie.com/esapro.htm

ESA2 Software (Windows/Mac) - Single Zone
www.nicolaudie.com/esa2.htm

Hardware Manager (Windows/Mac) - Firmware, clock..
www.nicolaudie.com/download.htm

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Some functions are available directly from the controller keypad using the SELECT button.

Time Format

3:30pm = 15:30

15:30 = 1530

Date Format

5 DEC 2018 = 051218

	Function	Examples
Select + 1	View time	view time 2:45pm = 14:45 = 1445
Select + 2	View date	view date 6 Sep 2018 = 060918
Select + 3	Set time	Set time to 3:30pm = 15:30 = press buttons 1530 1 5 3 0
Select + 4	Set date	Set 18 DEC 2018 date = 051218 0 5 1 2 1 8
Select + 5	Set fade time	Set 1m32s fade time = 0132 0 1 3 2
Select + 6	Lock function	This function locks the keypad (disabled by default) Use HardwareManager to enable it and set the 4-digit code
Select + 0	Firmware version	0121 = firmware version 1.21

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Troubleshooting

Fixtures / lights not responding

- Check the DMX +, - and GND are connected correctly
- Check that the driver or lighting fixture is in DMX mode
- Be sure that the DMX address has been set correctly
- Check there are no more than 32 devices in the chain
- Check that the DMX LED is flickering to the right of the SD card
- Connect with the computer and open HardwareManager (found in the software directory). Open the DMX Input/Output tab and move the faders. If your fixtures respond here, it is possibly a problem with the show file
- We strongly recommend the use of a DMX Tester with our interfaces with any problem solving
- No DMX output? There could be a faulty DMX chip. The has 2 x DMX chips labelled UDMX1 and UDMX2 which are user-replacable (see pg2). Try swapping the chips over to test if one is faulty. Use a flat head screw driver to pry them gently from the socket

8 scene and standby LEDs flashing

There is no SD card detected

- Check the SD card is properly inserted
- Try formatting the SD card to FAT16/32 in the computer
- Try re-writing the show file
- Try replacing the SD memory card (Max 4Gb)

8 scene LEDs are flashing

There is no show file detected on the SD memory card

- Try formatting the SD card in the computer
- Try re-writing the show file
- Try writing the standalone demo show using HardwareManager
- Try replacing the SD memory card

8 scene LEDs cycling constantly

The interface is constantly restarting. There could be several causes :

- Corrupt show files. Remove SD card and backup contents. Use the HardwareManager Standalone screen to write the demo show. If this solves problem, rewrite your show using the dmx programming software and .arc or .dlm from your backup.
- Corrupt Firmware. Load HardwareManager and update the firmware. If not detected, try Bootloader Mode.
- Faulty power supply. Use a multimeter to check the power supply. The Stick-KE1 and KE2 require 6-7v. The older Stick-KU1, which used a miniSD card rather than a microSD, requires 9v. Power supplies do lose the ability to supply voltage over time. If below specification, replace power supply.

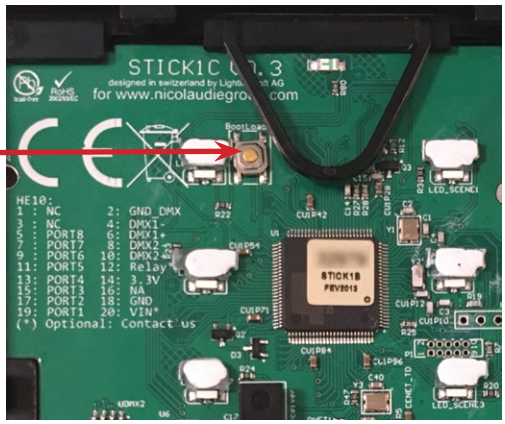
All LEDs on the controller are flickering

The controller is in Bootloader Mode. This is a special 'startup mode' which is run before the main firmware loads.

- Check that there is nothing metallic touching the back of the controller
- Try re-writing the firmware with the latest HardwareManager
- Try slow formatting SD to FAT16/32 or replacing the card

The controller is not detected by the computer

- Be sure that the latest software version is installed
- Make sure you are using Windows 7, 8 & 10 or OS X 10.8+
- Connect by USB and open the HardwareManager (found in the software directory). If it's detected here, try to update the firmware
- If not detected by HardwareManager, the firmware could be corrupted. This can be solved by forcing a firmware update in Bootloader Mode
  - Load HardwareManager
  - Press BootLoader button on the back (see image) and ...
- - Plug-in the USB cable at the same time. If successful the interface will appear in HardwareManager with the suffix '_BL'
  - Update the firmware



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